

### **REMARKS**

This is a full and timely response to the Office Action mailed June 15, 2005. Reconsideration and allowance of the application and presently pending claims are respectfully requested.

#### **Present Status of Patent Application**

Upon entry of the amendments in this response, claims 2-29 remain pending in the present application. Reconsideration and allowance of the application and all presently pending claims are respectfully requested.

#### **A. Allowable subject matter**

Applicants wish to place on record their sincere gratitude for Examiner's allowance of claims 2-24.

#### **B. Claim Rejections - 35 U.S.C. § 102**

##### **General statement of the rejection**

Claims 25 -29 are rejected under 35 U.S.C. 102(b) as being anticipated by Manning (U.S. Patent 5,999,293).

##### **Response to the Rejection**

##### **Claim 25**

A proper rejection of a claim under 35 U.S.C. 102 requires that a single prior art reference disclose each element of the claim. *See, e.g., W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303, 313 (Fed. Cir. 1983). Applicants respectfully assert that the cited prior art reference of Manning does not disclose each element of Applicants' claim 25. Provided below are reasons for making such an assertion.

In rejecting claim 25, the Office action states in pertinent part, that "*Manning teaches in FIG. 3 that the control signal switches the data received from P1 to be output to P3 or P4.*" While it is true that Manning does indeed switch "data received from P1 to be output from P3 or P4," Applicants respectfully point out that "the data" which is switched by Manning is a *first* data pulse that is switched out from port P3 and a *second* data pulse that is switched out from port P4.

Such an optical switching is in contrast to Applicants claim 25 which relates to switching a first portion of a single optical signal bit into an optical ring and blocking a second portion of the same signal bit from entering the optical ring. Specifically, claim 25 includes “an optical switch configured to switch an optical signal bit of an optical data signal into the optical ring at a first instance of time, and to block the optical signal bit from entering the optical ring at a second instance of time, wherein the first and second instances of time occur within one bit period of the optical signal bit.”

To further explain the difference between Manning and Applicants’ claim 25, attention is drawn to Manning col. 4, lines 34-46, which is reproduced below for easy reference:

The timing of these control pulses and their relative delay are chosen so that they bracket the arrival of a data pulse at the SOAs at time T2. At that time SOA1 has just been depleted by the control pulse, while SOA2 has not yet received the control pulse. The different portions of the pulse in SOA1 and SOA2 therefore experience different phase shifts, producing a phase differential of  $\pi$ . As a result of this phase shift when the portions are recombined in the output coupler 34 this selected pulse is output from port P3. By contrast, a later arriving data pulse at time T5 experiences only a small differential phase shift  $\delta\phi$  and so is output almost entirely from port P4.  
(Emphasis added)

In contrast, attention is now drawn to Applicants’ specification page 6, lines 1-20, which explain the operation of Applicants’ optical switch. In pertinent part, Applicant has described: “at the appropriate time, which depends on the selected sampling aperture, the gate pulse shuts off, and some sampled portion of the new bit is now trapped in the ring.”

Consequently, Applicants respectfully assert that the cited prior art reference of Manning does not at least disclose that part of Applicants’ claim 25, which includes “an optical switch configured to switch an optical signal bit of an optical data signal into the optical ring at a first instance of time, and to block the optical signal bit from entering the optical ring at a second instance of time, wherein the first and second instances of time occur within one bit period of the optical signal bit.”

Applicants respectfully assert that the single cited prior art reference, Manning, fails to disclose or teach each element of claim 25 as required for a proper rejection of claim 25 under 35 U.S.C. 102(b). Therefore, Applicants respectfully traverse the rejection of claim 25, and request withdrawal of the rejection followed by allowance of claim 25.

#### **Claims 26 and 27**

Claims 26 and 27 depend directly on independent claim 25. Since independent claim 25 is allowable, dependent claims 26 and 27 are also allowable as a matter of law. *In re Fine*, 837

F. 2d 1071 (Fed. Cir. 1988). Consequently, Applicants traverse the rejection of claims 26 and 27 and request allowance of these claims.

**Claim 28**

Claim 28 is a method claim which relates to switching a first portion of a single optical signal bit into an optical ring and blocking a second portion of the same signal bit from entering the optical ring. Claim 28 is reproduced below in pertinent part, for easy reference:

switching an optical data signal into the optical ring at a first instance of time within a bit period of the optical signal; and

blocking the optical data signal from entering the optical ring at a second instance of time within the bit period of the optical data signal.

Applicants respectfully assert that the cited prior art of Manning does not disclose switching a single optical data signal into an optical ring at a first instance of time and blocking the *same* optical data signal at a second instance of time, where both the instances of time are within one bit period of the optical data signal.

Because Manning fails to disclose or teach each element of claim 28 as required for a proper rejection under 35 U.S.C. 102(b), Applicants respectfully traverse the rejection of claim 28 and request withdrawal of the rejection followed by allowance of claim 28.

**Claim 29**

Claim 29 depends directly on independent claim 28. Since independent claim 28 is allowable, dependent claim 29 is also allowable as a matter of law. *In re Fine*, 837 F. 2d 1071 (Fed. Cir. 1988). Consequently, Applicants traverse the rejection of claim 29 and request allowance of this claim.

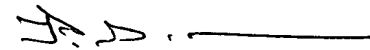
**Prior Art Made of Record**

The prior art made of record has been considered, but is not believed to affect the patentability of the presently pending claims.

**CONCLUSION**

In light of the reasons set forth above, Applicants respectfully submit that claims 2-29 are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned representative at (404) 610-5689.

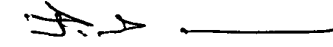
Respectfully submitted,



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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, postage prepaid, in an envelope addressed to: Commissioner for Patents, P. O. Box 1450, Alexandria, VA, 22313-1450, on August 11, 2005.



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